

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF OHIO
EASTERN DIVISION

UNITED STATES OF AMERICA,
Plaintiff,
v.
GLOBE METALLURGICAL, INC.
Defendant.

COMPLAINT

The United States of America, by authority of the Attorney General of the United States and through the undersigned counsel, acting at the request of the Administrator of the United States Environmental Protection Agency (EPA), alleges:

NATURE OF THE ACTION

1. This is a civil action brought against defendant Globe Metallurgical, Inc. (“Globe” or “Defendant”) pursuant to Clean Air Act (CAA or the “Act”) Sections 113(b) and 167, 42 U.S.C. §§ 7413(b) and 7477, for injunctive relief and assessment of civil penalties for one or more violations of:

(a) The Prevention of Significant Deterioration (PSD) provisions of the Act, 42 U.S.C. §§ 7470-92, and the PSD regulations set forth at 40 C.F.R. § 52.21;

(b) The New Source Performance Standards (NSPS) provisions of the Act, 42 U.S.C. § 7411(b), and the NSPS regulations for ferroalloy production facilities (Subpart Z) set forth at 40 C.F.R. §§ 60.260 through 60.266;

(c) The provisions of the federally-enforceable Ohio State Implementation Plan (“Ohio SIP”) that incorporate the relevant requirements of the PSD and/or NSPS provisions of the Act, as outlined below; and

(d) Title V of the Act, 42 U.S.C. §§ 7661-7661f; Title V’s implementing federal regulations, codified at 40 C.F.R. Part 70; the Ohio Title V Permit rules, Ohio Administrative Code (OAC) Chapter 3745-77; and Defendant’s Title V permit.

2. Defendant is owner and operator of a ferroalloy production facility located at 1595 Sparling Road, Waterford, Washington County, Ohio (the “Facility”). The Facility operates five electric arc furnaces (EAFs), numbered 1, 2, 3, 5, and 7.

3. In April of 2013, Defendant modified EAF #5 in order to increase the furnace’s capacity, among other reasons.

4. Defendant’s April 2013 modification of EAF #5 resulted in a significant net emissions increase of sulfur dioxide (SO₂).

5. Defendant performed the April 2013 modification of EAF #5 without first obtaining the proper permits authorizing the modification and subsequent operation of the unit and without installing and employing the best available control technology (BACT) to control emissions of SO₂ from EAF #5, as required by the Act.

6. Defendant’s modification of EAF #5 also resulted in an increased emission rate of particulate matter (PM), subjecting EAF #5 to NSPS Subpart Z.

7. Defendant has not complied with the provisions of Subpart Z, as required by the Act, which include requirements to submit certain notifications, install a continuous opacity monitoring system (COMS), and to conduct initial performance testing to demonstrate compliance with emission limitations, among others.

8. As a result of Defendant's operation of EAF #5 following these modifications and the absence of the appropriate controls and testing, excessive amounts of SO₂ and PM have been, and continue to be, released into the atmosphere.

9. Additionally, Defendant has operated, and upon information and belief, continues to operate, the Facility while repeatedly exceeding opacity limitations and violating pollution control operational and performance criteria established in the Ohio SIP;

10. The violations described above also constitute violations of Defendant's Title V operating permit, issued by the Ohio Environmental Protection Agency ("Ohio EPA"), and as such are violations of the Title V provisions of the Act.

JURISDICTION AND VENUE

11. This Court has jurisdiction over the subject matter of this action and over the parties pursuant to CAA Section 113(b), 42 U.S.C. § 7413(b), and pursuant to 28 U.S.C. §§ 1331, 1345, and 1335(a).

12. Venue is proper in this District pursuant to CAA Section 113(b), 42 U.S.C. § 7413(b), and 28 U.S.C. §§ 1391(b) and 1395(a), because the violations that constitute the basis for this Complaint occurred in this District and the ferroalloy production facility at issue is operated in this District.

NOTICES

13. On June 30, 2015, EPA issued a Notice of Violation/Finding of Violation (NOV/FOV) to Globe for violations of the PSD regulations incorporated into the Ohio SIP, NSPS regulations, the Ohio SIP, and the Facility's Title V Permit, pursuant to CAA Section 113(a)(1) and (a)(3), 42 U.S.C. § 7413(a)(1) and (a)(3), and provided a copy of the NOV/FOV to the State of Ohio.

14. On December 6, 2016, EPA issued a second NOV/FOV to Globe for violations of the Facility's Title V Permit and the Ohio SIP, pursuant to CAA Section 113(a)(1) and (a)(3), 42 U.S.C. § 7413(a)(1) and (a)(3), and provided a copy of the NOV/FOV to the State of Ohio.

15. More than 30 days has elapsed since the issuance of the NOV/FOVs referred to in the preceding paragraphs.

16. Globe and the State of Ohio have had notice of the violations of the requirements or prohibitions of an applicable SIP or permit alleged against Globe in this Complaint for at least 30 days before the filing of this Complaint, in accordance with CAA Section 113(a)(1), 42 U.S.C. § 7413(a)(1).

17. The United States has provided notice of the commencement of this action to the State of Ohio, pursuant to CAA Section 113(b), 42 U.S.C. § 7413(b).

THE DEFENDANT

18. Defendant Globe is a Delaware corporation headquartered in Waterford, Ohio, and is a wholly-owned subsidiary of Globe Specialty Metals, Inc., a Delaware corporation with its principal place of business in Miami, Florida.

19. Globe is the owner and operator of the Facility – a ferroalloy production facility located in Waterford, Ohio.

20. Globe is a “person” within the meaning of CAA Section 302(e), 42 U.S.C. § 7602(e).

STATUTORY AND REGULATORY BACKGROUND

21. The CAA is designed to protect and enhance the quality of the nation’s air, so as to promote the public health and welfare and the productive capacity of its population. CAA Section 101(b)(1), 42 U.S.C. § 7401(b)(1).

A. National Ambient Air Quality Standards

22. CAA Section 108(a), 42 U.S.C. § 7408(a), requires the Administrator of the EPA to identify and prepare air quality criteria for each air pollutant, emissions of which may endanger public health or welfare, and the presence of which results from numerous or diverse mobile or stationary sources. For each such “criteria” pollutant, CAA Section 109, 42 U.S.C. § 7409, requires EPA to promulgate national ambient air quality standards (NAAQS) requisite to protect public health and welfare.

23. Pursuant to CAA Sections 108 and 109, 42 U.S.C. §§ 7408 and 7409, EPA has identified SO₂ and PM as criteria pollutants, and has promulgated NAAQS for such pollutants. 40 C.F.R. §§ 50.4, 50.5, 50.6, 50.7, 50.13, and 50.18.

24. SO₂ and PM when emitted into the air can each have adverse environmental and health impacts. SO₂ interacts in the atmosphere to form sulfate aerosols, which may be transported long distances through the air. Most sulfate aerosols are particles that can be inhaled. In the eastern United States, sulfate aerosols comprise 25% of the inhalable particles and, according to recent studies, high levels of sulfate aerosols are associated with increased sickness and mortality from lung disorders, such as asthma and bronchitis. Lowering sulfate aerosol emissions may significantly reduce the incidence and the severity of asthma and bronchitis and associated hospital admissions and emergency room visits.

25. PM has numerous adverse impacts on health and welfare. PM contains microscopic solid or liquid droplets that can be inhaled and cause serious respiratory and cardiovascular health effects, such as asthma, bronchitis, and heart attacks. PM exposure may also cause premature death of individuals suffering from heart or lung disease. Children, older

adults, and people with heart or lung disease are particularly at risk for health effects related to PM exposure.

26. SO₂ interacts in the atmosphere with water, oxygen, and other chemicals to form sulfuric acid, commonly known as acid rain. Acid rain, which also comes in the form of snow or sleet, acidifies lakes and streams rendering them uninhabitable by aquatic life, and it damages trees at high elevations. Acid precipitation accelerates the decay of building materials and paints, including irreparable damage to buildings, statues, and sculptures that are part of our nation's cultural heritage. PM can also stain and damage stone and other materials, including culturally significant objects such as statues and monuments.

27. SO₂ and PM contribute to reduced visibility (haze) in parts of the United States, including many of our treasured national parks and wilderness areas. PM can also settle on the ground or in the water, which results in making lakes and streams acidic, depleting the nutrients in the soil, and damaging sensitive forests and farm crops.

28. Under CAA Section 107(d), 42 U.S.C. § 7407(d), each state is required to designate those areas within its boundaries where the air quality is better or worse than the NAAQS for each criteria pollutant, or where the air quality cannot be classified due to insufficient data. An area that meets the NAAQS for a particular pollutant is termed an “attainment” area with respect to such pollutant. An area that does not meet the NAAQS for a particular pollutant is termed a “nonattainment” area with respect to such pollutant. An area that cannot be classified as either “attainment” or “nonattainment” with respect to a particular pollutant due to insufficient data is termed “unclassifiable” with respect to such pollutant.

29. CAA Section 110, 42 U.S.C. § 7410, requires each state to adopt and submit to EPA for approval a SIP that provides for the attainment and maintenance of the NAAQS within the state.

30. Prior to October 4, 2013, the portion of Washington County, Ohio encompassing Waterford Township, where the Facility is located, was classified as in attainment or unclassifiable for SO₂. Since that date, that area has been in nonattainment for the 2010 SO₂ NAAQS standard. From 2005 to 2012, Washington County was nonattainment for PM_{2.5}.

B. Prevention of Significant Deterioration Requirements

31. CAA Title I, Part C, 42 U.S.C. §§ 7470-7492, sets forth requirements for the prevention of significant deterioration of air quality in those areas designated as either attainment or unclassifiable for purposes of meeting the NAAQS. These requirements are designed to protect public health and welfare, to assure that economic growth will occur in a manner consistent with the preservation of existing clean air resources, and to assure that any decision to permit increased air pollution is made only after careful evaluation of all the consequences of such a decision and after public participation in the decision making process. These CAA provisions and their implementing regulations at 40 C.F.R. Part 52.21 are referred to herein as the “PSD Program.”

32. CAA Section 165(a), 42 U.S.C. § 7475(a), and 40 C.F.R. § 52.21(a)(2)(iii), prohibit the construction, major modification, and subsequent operation of a “major emitting facility” in an area designated as attainment or unclassifiable, unless a permit has been issued that comports with the requirements of Section 165 and the facility employs BACT for each pollutant subject to regulation under the Act that is emitted from the facility.

33. CAA Section 169(1), 42 U.S.C. § 7479(1), designates sources with the potential to emit 250 tons per year (tpy) or more of any regulated air pollutant to be “major emitting facilities.”

34. CAA Section 110(a) and 161 of the Act, 42 U.S.C. §§ 7410(a) and 7471, require each state to adopt a SIP that contains emission limitations and such other measures as may be necessary to prevent significant deterioration of air quality in areas designated as attainment or unclassifiable. A state may comply with CAA Sections 110(a) and 161, 42 U.S.C. §§ 7410(a) and 7471, by having its own PSD regulations, which must be at least as stringent as those set forth at 40 C.F.R. § 51.166, approved by EPA as part of its SIP. If a state does not have a PSD program that has been approved by EPA and incorporated as part of its SIP, the federal PSD regulations set forth at 40 C.F.R. § 52.21 may be incorporated by reference into the SIP. 40 C.F.R. § 52.21(a).

35. On October 10, 2001, EPA conditionally approved revisions to the Ohio SIP to incorporate Ohio’s PSD program, effective October 10, 2001. 66 Fed. Reg. 51570 (Oct. 10, 2001). On January 22, 2003, EPA granted final approval for Ohio’s PSD program, effective March 10, 2003. 68 Fed. Reg. 2909 (Jan. 22, 2003). Ohio’s current PSD program, as approved by EPA effective August 24, 2015, had an effective date at the state level of May 29, 2014.¹ 40 Fed. Reg. 36477.

36. The PSD provisions in the Ohio SIP are codified at OAC §§ 3745-31-11 through 3745-31-20, and apply to any “major stationary source” or “major modification” that begins actual construction in an attainment area. OAC § 3745-31-13(A).

¹ On March 7, 2019, EPA approved additional revisions to the federally-approved Ohio PSD Program. For ease of reference, citations herein are to the current regulations (effective at the state-level in part on May 29, 2014 and in part on May 1, 2016). While the 2014 revisions made slight changes to the numbering of the SIP provisions pertinent to the claims asserted herein, no substantive revisions were made to those provisions at that time.

37. Under the Ohio SIP, “major stationary source” is defined to include, *inter alia*, plants that emit or have the potential to emit 250 tpy or more of any regulated pollutant. OAC § 3745-31-01(NNN)(2)(b).

38. Under the Ohio SIP, “major modification” is defined at OAC § 3745-31-01(LLL) as any physical change in or change in the method of operation of a major stationary source that would result or results in a significant emissions increase of a regulated pollutant, and a significant net emissions increase of that pollutant from the major stationary source.

39. Under the Ohio SIP, “net emissions increase” means the amount by which the sum of the following exceeds zero: “[a]ny increase in emissions from a particular physical change or change in the method of operation at a stationary source” and “[a]ny other increases and decreases in actual emissions at the stationary source that are contemporaneous with the particular change and are otherwise creditable.” OAC § 3745-31-01(VVV)(1)-(2).

40. Under the Ohio SIP, a “significant” net emissions increase includes but is not limited to an increase in SO₂ of 40 tpy. OAC § 3745-31-01(VVVVV)(1).

41. Under the Ohio SIP, “actual emissions” is the “average rate, in tons per year, at which the emissions unit actually emitted the pollutant during a consecutive twenty-four month period which precedes the particular date and which is representative of normal emissions unit operation.” OAC § 3745-31-01(C)(1). In addition, for any emissions unit that “has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the emissions unit on that date.” OAC § 3745-31-01(C)(3).

42. Under the Ohio SIP, “construction” means “any physical change or change in the method of operation (including fabrication, erection, installation, demolition or modification of an emissions unit) that would result in a change in emissions.” OAC § 3745-31-01(DD); see also

42 U.S.C. § 7479(2)(C) (“construction” includes the “modification” (as defined in CAA Section 111(a), 42 U.S.C. § 7411(a)) of any source or facility).

43. If a source is a major stationary source in an attainment or unclassifiable area planning to construct a major modification under the foregoing definitions, then it is subject to the requirements of OAC §§ 3745-31-01 through 3745-31-20. A major stationary source subject to the requirements of OAC §§ 3745-31-01 through 3745-31-20 must, among other things, perform an analysis of source impacts, perform air quality modeling and analysis, apply BACT, and allow for meaningful public participation in the process. OAC §§ 3745-31-01 through 3745-31-20.

44. No major stationary source to which the requirements of OAC §§ 3745-31-01 through 3745-31-20 apply shall begin actual construction of a major modification without a permit which states that the stationary source or modification will meet those requirements (a “PSD permit”). OAC § 3745-31-13(A). Any owner or operator of a source or modification subject to OAC §§ 3745-31-01 through 3745-31-20 who constructs or operates a source not in accordance with such regulations is subject to an enforcement action under CAA Section 113, 42 U.S.C. § 7413. 40 C.F.R. § 52.23.

C. New Source Performance Standards

45. CAA Section 111(b)(1)(A), 42 U.S.C. § 7411(b)(1)(A), required EPA to establish and publish a list of stationary source categories which “cause, or contribute significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.” The Act required EPA to promulgate federal standards of performance for new or modified sources within each source category. The standard of performance that Congress

established for new or modified sources within the stationary source categories is defined at CAA Section 111(a)(1), 42 U.S.C. § 7411(a)(1):

The term “standard of performance” means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

46. General NSPS provisions applying to source categories are set forth at 40 C.F.R. Part 60, Subpart A, §§ 60.1-60.19. NSPS General Provisions apply to all NSPS source categories unless explicitly exempted in a specific subpart.

47. Under NSPS, “any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of Section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.” *See* 40 C.F.R. § 60.14(a).

48. Pursuant to CAA Section 111(b)(1)(B), EPA had established approximately 90 technology-based standards as of 2013. These standards apply to facilities that are considered “affected facilities” under the relevant subpart and which were built new, modified, or reconstructed since the applicability date for the relevant subpart. EPA also established test methods in Appendix A-1 to A-8 to Part 60.

49. 40 C.F.R. Part 60, Subpart Z sets forth the standards of performance for ferroalloy production facilities. Subpart Z provides that its provisions “are applicable to the following affected facilities: Electric submerged arc furnaces which produce silicon metal,

ferrosilicon, calcium silicon, silicomanganese zirconium, ferrochrome silicon, silvery iron, high-carbon ferrochrome, charge chrome, standard ferromanganese, silicomanganese, ferromanganese silicon, or calcium carbide; and dust-handling equipment.” See 40 C.F.R. § 60.260(a). It further provides that “[a]ny facility under paragraph (a) of this section that commences construction or modification after October 21, 1974, is subject to the requirements of this subpart.” See 40 C.F.R. § 60.260(b).

50. Facilities that are subject to the requirements of Subpart Z are required to, among other things, install a COMS, conduct an initial performance test, meet certain emission standards (including opacity limits for particulate matter), and comply with certain reporting and recordkeeping requirements.

D. Title V Permit Program

51. CAA Title V, 42 U.S.C. §§ 7661-7661f, establishes an operating permit program for certain sources, including “major sources” and any source required to have a PSD permit. The purpose of Title V is to ensure that all “applicable requirements” that a given source must comply with under the Act, including NSPS requirements, are collected in one place, *i.e.* a Title V operating permit.

52. Federal regulations promulgated pursuant to CAA Title V are codified at 40 C.F.R. Part 70.

53. Pursuant to CAA Section 502, no source may operate without a Title V permit that lists all the requirements under the Act that are applicable to the source after the effective date of any permit program approved or promulgated under CAA Title V. 42 U.S.C. § 7661a(a); 40 C.F.R. § 70.7(b).

54. Pursuant to CAA Section 502(b), 42 U.S.C. § 7661a(b), on July 21, 1992, EPA promulgated regulations implementing the requirements of Title V and establishing the minimum elements of a major source operating permit program to be administered by any state air pollution control agency. 57 Fed. Reg. 32250 (July 21, 1992). These regulations are codified at 40 C.F.R. Part 70.

55. The Ohio Title V program was granted final approval by EPA, effective October 1, 1995. 60 Fed. Reg. 42045 (Aug. 15, 1995). Ohio's Title V operating permit program is currently codified in the Ohio Administrative Code at OAC §§ 3745-77.

56. CAA Section 502(a), 42 U.S.C. § 7661a(a), the federal Title V regulations (40 C.F.R. § 70.7(b)), and the Ohio Title V operating permit program regulations (OAC § 3745-77-02(A)) have at all relevant times made it unlawful for any person to violate any requirement of a permit issued under Title V or to operate a major source except in compliance with a permit issued by a permitting authority under Title V.

57. CAA Section 504(a), 42 U.S.C. § 7661c(a), the federal Title V regulations (40 C.F.R. §§ 70.1(b), 70.6(a)), and the Ohio Title V operating permit program regulations (OAC § 3745-77-07) have at all relevant times required that each Title V permit include, among other things, enforceable emission limitations and such other conditions as are necessary to assure compliance with applicable requirements of the Act and the requirements of the applicable SIP. These requirements include any PSD requirements, including the requirement to comply with an emission rate that meets BACT, as well as any applicable NSPS requirements.

58. CAA Section 503(c), 42 U.S.C. § 7661b(c), provides that any person required to have a permit must submit to the permitting authority a compliance plan describing how the

source will comply with all applicable requirements, and an application for a permit signed by a responsible official who must certify the accuracy of the information submitted.

59. 40 C.F.R. § 70.5 and OAC § 3745-77-03 require any owner or operator of a source subject to Title V permitting requirements to submit a complete permit application which, among other things, identifies all applicable requirements (including the PSD requirements such as the requirement to comply with an emission rate that meets BACT), certifies compliance with all applicable requirements, and contains a compliance plan for all applicable requirements for which the source is not in compliance.

60. Title V permit applicants are required to submit supplementary facts or corrected information as necessary to the permitting authority after submitting an initial application where such application contains incorrect information and to provide additional information to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit. 40 C.F.R. § 70.5(b); OAC 3747-77-03(F).

E. Reasonably Available Control Measures

61. On May 27, 1994, EPA approved a major revision of the OAC Particulate Matter Standards, OAC § 3745-17, as part of the federally-enforceable SIP for Ohio. *See* 59 Fed. Reg. 27,464. The Restriction of Emission of Fugitive Dust Rule, OAC 3745-17-08, applies to stationary sources in specified counties in Ohio (including Washington County, in which the Facility is located), and requires in relevant part that:

No person shall cause or permit any fugitive dust source to be operated; or any materials to be handled, transported, or stored; or a building or its appurtenances or a road to be used, constructed, altered, repaired, or demolished without taking or installing reasonably available control measures [RACM] to prevent fugitive dust from becoming airborne. Such reasonably available control measures shall include . . . the installation and use of hoods, fans, and other equipment to adequately enclose, contain, capture, vent and control the fugitive dust. Such equipment shall meet the following requirements: the collection efficiency is

sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

OAC § 3745-1 7-08(B)(3) (paragraph breaks omitted).

62. OAC § 3745-17-08(C) states that:

For purposes of determining compliance with the requirements of paragraph (B) of this rule, the director shall consider a control measure to be adequate if it complies with the following:

- (1) The visible particulate emission limitation(s) contained in rule 3745-17-07 of the Administrative Code;
- (2) If applicable, the control requirements contained in paragraph (B) of this rule; and
- (3) The definition of reasonably available control measures in paragraph [(B)(18)] of rule 3745-17-01 of the Administrative Code.

63. OAC § 3745-17-01(B)(18) defines reasonably available control measures as “the control technology which enables a particular fugitive dust source to achieve the lowest particulate matter emission level possible and which is reasonably available considering technological feasibility and cost-effectiveness.”

64. OAC § 3745-17-01(B)(6) defines fugitive dust as “particulate matter which is emitted from any source by means other than a stack.” The requirements of OAC § 3745-17-08(B) apply to facilities located in Washington County, Ohio. *See* OAC § 3745-17-08 Appendix A.

ENFORCEMENT PROVISIONS

65. CAA Sections 113(a)(1) and (3), 42 U.S.C. § 7413(a)(1) and (3), provide that the Administrator may bring a civil action in accordance with CAA Section 113(b), 42 U.S.C. § 7413(b), whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated or is in violation of any requirement or

prohibition of, *inter alia*, the PSD requirements of CAA Section 165(a), 42 U.S.C. § 7475(a); the NSPS requirements of CAA Section 111, 42 U.S.C. § 7411; CAA Title V, 42 U.S.C. §§ 7661-7661f, or any rule or permit issued thereunder; or the Ohio SIP.

66. CAA Section 113(b), 42 U.S.C. § 7413(b), authorizes the United States to initiate a judicial enforcement action for a permanent or temporary injunction, and/or for the assessment of a civil penalty of up to \$25,000 per day for each violation whenever any person violates any requirement of the Act. The Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended by the Debt Collection Improvement Act, 31 U.S.C. § 3701, requires the United States to adjust penalties for inflation on a periodic basis. Pursuant to 40 C.F.R. Part 19, the United States may seek civil penalties of up to \$27,500 per day for each such violation occurring on or after January 31, 1997 and up to and including March 15, 2004; up to \$32,500 per day for each such violation occurring on or after March 16, 2004 through January 12, 2009; up to \$37,500 per day for each such violation occurring on or after January 13, 2009 through November 2, 2015; and up to \$109,024 per day for each such violation occurring on or after November 3, 2015, where penalties are assessed on or after January 12, 2022.

67. CAA Section 167, 42 U.S.C. § 7477, authorizes the Administrator to initiate an action for injunctive relief, as necessary to prevent the construction, modification, or operation of a major emitting facility that does not conform to the PSD requirements in CAA Part C.

GENERAL ALLEGATIONS

68. At all times pertinent to this civil action, Globe Metallurgical Inc. was an owner and/or operator of the Facility.

69. Defendant produces and at relevant times has produced silicon metal and ferrous silicon metal through a reduction smelting operation at the Facility. The reactants consist of

metallic ores (silicon oxide, *i.e.* quartzite gravel), iron (for ferrous silicon metal production), and a carbon-source reducing agent (coal, coke, charcoal, or wood chips). The materials are fed into submerged arc EAFs and heated. The charge material melts and the carbonaceous material reacts with oxygen in the metal oxides of the charge and reduces them to base metals. The molten metal and slag are removed from the EAF periodically and poured into a ladle, in a process called “tapping.”

70. No. 1 Shop also houses a Plunging Station. Depending on the nature of the material being produced, the ladle containing molten material tapped from the EAFs may be placed into the Plunging Station, where magnesium, calcium, and other alloy additions can be plunged into the ladle to modify the chemistry of the material.

71. The molten material is then poured, cast, and cooled. Molten metal is either cast into molds in a batch process (“Casting to Chills”) in either No. 1 Shop (No. 1 Shop Hot Metal Casting) or No. 2 Shop (No. 2 Shop Hot Metal Casting), or sent through a Continuous Flow Caster in the No. 1 Shop (also part of the No. 1 Shop Hot Metal Casting). In the flow caster, molten metal is poured onto a conveyor belt and cooled using a water mist.

72. The cooled metal is then crushed and sized. The No. 1 Shop and No. 2 Shop each has its own crushing and sizing lines (No. 1 Shop Alloy Sizing Line and No. 2 Shop Alloy Sizing Line).

73. Defendant has five EAFs at the Facility, identified as EAF #1, #2, #3, #5, and #7. The No. 1 Shop contains EAF #1, #2, and #3, while the No. 2 Shop houses EAF #5 and #7. The EAFs were initially installed between 1955 and 1967. Since 2003, EAF #7 has produced both silicon metal and ferrous silicon metal. From 2003 until 2013, EAF #5 produced only silicon metal.

74. In 2013, Defendant rebuilt and enlarged EAF #5, replacing the existing 28-foot diameter shell (the sidewalls of the furnace) with a 32-foot diameter shell. This modification allowed Defendant to produce silicon metal or ferrous silicon metal at EAF #5 and increased the unit's maximum production capacity.

75. Additionally, Defendant operates an Alloy Loader which screens and loads finished silicon metal and a Portable Jaw Crusher which crushes, conveys, and screens final product. Both of these operations are located in separate buildings.

76. Emissions from EAF #1, EAF #2, EAF #3, No. 1 Shop Fume Handling System, and the No. 1 Shop Plunging Station vent to the No. 1 Shop Baghouse. Emissions from EAF #5, EAF #7, and the No. 2 Shop Fume Handling System vent to the No. 2 Shop Baghouse. Emissions from the Portable Jaw Crusher, No. 2 Shop Alloy Sizing Line, and Alloy Loader vent to Filter Baghouse (F005), Filter Baghouse (P911), and the Loader Baghouse respectively.

77. During the silicon metal and ferrosilicon metal manufacturing process, the Facility emits pollutants, including but not limited to SO₂ and PM.

78. Ohio EPA issued a Title V permit to Defendant for the Facility with an effective date of October 24, 2001.

79. At all times pertinent to this civil action, the Facility was and is a “major emitting facility” and “major stationary source” within the meaning of the Act and the PSD regulations of the Ohio SIP. 42 U.S.C. § 7479(1); 40 C.F.R. § 52.21(b)(1); OAC § 3745-31-01(NNN)(2)(b).

80. At all times pertinent to this civil action, the Facility was and is a “stationary source” within the meaning of the Act and the NSPS regulations. 42 U.S.C. § 7411(a); 40 C.F.R. § 60.2.

81. At all times pertinent to this civil action, the Facility was and is a “major source” within the meaning of Title V of the Act, the federal Title V regulations, and the Ohio Title V program regulations. 42 U.S.C. § 7661(2); 40 C.F.R. § 70.2; OAC § 3745-77-01(X).

FIRST CLAIM FOR RELIEF
PSD Violation – EAF #5

82. Paragraphs 1 through 81 are realleged and incorporated herein by reference.

83. The Facility has at relevant times been a major emitting facility and a major stationary source subject to the PSD requirements of the Act identified above.

84. EPA has conducted investigations of Defendant’s Facility, which included review of permitting history and emissions data, and analysis of other relevant information obtained from the Defendant concerning construction and operation of the EAFs. The United States alleges the following based on EPA’s investigations, information, and belief.

85. Since the initial construction of EAF #5, EAF #5 has undergone a major modification within the meaning of the PSD provisions. The major modification resulted in both a significant emissions increase and a significant net emissions increase of SO₂.

86. In April 2013, Defendant undertook a rebuild project at EAF #5 (“2013 rebuild”). Prior to the rebuild, EAF #5 had a 28-foot diameter shell.

87. Prior to the 2013 rebuild, EAF #5 had only produced silicon metal since 2003.

88. Defendant’s internal capital appropriations requests in 2012 and 2013 described the 2013 rebuild as a project to increase the shell diameter of EAF #5 to 32 feet in order to “increase furnace output” and be able to safely produce ferrosilicon and other silicon alloys at EAF #5.

89. The 2013 rebuild of EAF #5 increased the furnace size and allowed for a change in the product made. This change resulted in an increase of SO₂ emissions in excess of 40 tpy

over baseline emissions (a “significant” net emissions increase). Therefore, the 2013 rebuild of EAF #5 constituted a major modification to an existing major stationary source under the PSD provisions.

90. Defendant did not apply for or obtain any permit for the 2013 rebuild of EAF #5, did not conduct any modeling or undergo any pre-construction review for the project, and has not installed BACT for SO₂ at EAF #5.

91. Following the major modifications referred to in Paragraphs 86-89, Defendant has been in violation of CAA Section 165(a), 42 U.S.C. § 7475(a), and the corresponding Ohio SIP for PSD, by failing to undergo PSD review for a major modification which caused significant net emissions increases of SO₂, by failing to obtain a PSD permit, and by failing to install and operate BACT for control of such air pollutant.

92. Unless restrained by an Order of the Court, these violations of the Act and the implementing regulations are likely to continue.

93. As provided in CAA Section 113(b) and 167, 42 U.S.C. §§ 7413(b) and 7477, and pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 3701, and 40 C.F.R. § 19.4, the violations set forth above subject Defendant to injunctive relief and civil penalties of up to \$37,500 per day for each such violation occurring on or after January 13, 2009 through November 2, 2015; and up to \$109,024 per day for each such violation occurring on or after November 3, 2015, where penalties are assessed on or after January 12, 2022.

SECOND CLAIM FOR RELIEF
NSPS Violation – EAF #5

94. Paragraphs 1 through 81 are realleged and incorporated herein by reference.

95. EAF #5 is an electric submerged arc furnace that produces silicon metal and/or ferrosilicon and constitutes an “affected facility” under NSPS Subpart Z (Ferroalloy Production Facilities). *See* 40 C.F.R. § 60.260(a).

96. EAF #5 emits PM, an air pollutant for which a standard is provided under Subpart Z, and constitutes a “stationary source” for NSPS purposes. *See* 42 U.S.C. § 7411(a); 40 C.F.R. §§ 60.2 and 60.262.

97. The 2013 rebuild of EAF #5 increased the unit’s maximum production rate from 1.8 tons per hour (tph) to 1.9 tph.

98. The increase in EAF #5’s maximum production rate following the 2013 rebuild resulted in a corresponding increase in the maximum PM emission rate.

99. The 2013 rebuild of EAF #5 was a physical change and/or a change in the method of operation of EAF #5 which increased the maximum PM emission rate of EAF #5 and constituted a “modification” for NSPS purposes. *See* 42 U.S.C. § 7411(a); 40 C.F.R. § 60.14.

100. As an affected facility that underwent a modification after October 21, 1974, EAF #5 became subject to the requirements of NSPS Subpart Z. *See* 40 C.F.R. § 60.260(b).

101. Defendant has failed to comply with the requirements of the NSPS General Provisions and Subpart Z, including failure to submit required notifications (40 C.F.R. § 60.7), failure to install a continuous opacity monitoring system (40 C.F.R. § 60.264), and failure to conduct initial performance testing to demonstrate compliance with the NSPS emission limitation for PM (40 C.F.R. §§ 60.8 and 60.262).

102. Defendant’s conduct has violated CAA Section 111(e), 42 U.S.C. § 7411(e), and the NSPS regulations, 40 C.F.R. Part 60.

103. Unless restrained by an order of this Court, the violations identified in this Claim for Relief will continue.

104. As provided in CAA Sections 113(b), 42 U.S.C. § 7413(b), and pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 3701, and 40 C.F.R. § 19.4, the violations set forth above subject Defendant to injunctive relief and civil penalties of up to \$37,500 per day for each such violation occurring on or after January 13, 2009 through November 2, 2015; and up to \$109,024 per day for each such violation occurring on or after November 3, 2015, where penalties are assessed on or after January 12, 2022.

THIRD CLAIM FOR RELIEF
Title V Permit -- Opacity Violations

105. Paragraphs 1 through 81 are realleged and incorporated herein by reference.

106. Defendant's Title V permit limits fugitive emissions opacity for all EAFs and various other operations to no more than 20% opacity, as a 3-minute average.

107. Ohio SIP provisions codified at OAC § 3745-17-07(B)(3)(a) limit visible particulate emissions from electric arc furnace roof monitors to no more than 20% opacity, as a 6-minute average, except as provided for at OAC § 3745-17-07(B)(11).

108. The purpose of the visible particulate limits contained in the Facility's Title V permit and Ohio SIP is to help protect the public from unhealthy exposures to particulate.

109. On December 9, 2014, EPA conducted Alternative Method 082 opacity readings at Defendant's No. 2 Shop from 2:20 pm to 2:37 pm and from 2:38 pm to 2:52 pm. During the first set of readings there were two non-overlapping 3-minute average readings that exceeded 20% opacity and one 6-minute average reading that exceeded 20% opacity. During the second set of readings there were five non-overlapping 3-minute average readings that exceeded 20%

opacity and two 6-minute average readings that exceeded 20% opacity. EAFs #5 and #7 were operating within Defendant's No. 2 Shop at the time of the readings.

110. On February 10, 2015, EPA conducted Method 9 opacity readings at Defendant's No. 1 Shop from 1:38 pm to 2:08 pm. During that period, there were two non-overlapping 3-minute average readings that exceeded 20% opacity. EAFs #1, #2, and #3 were operating within Defendant's No. 1 Shop at the time of the readings.

111. On February 11, 2015, EPA conducted Method 9 opacity readings at Defendant's No. 1 Shop from 10:54 am to 11:09 am. During that period, there was one 3-minute average reading that exceeded 20% opacity and one 6-minute average reading that exceeded 20% opacity.

112. On October 16, 2018, EPA conducted Method 9 opacity readings at Defendant's No. 1 Shop from 2:17 pm to 2:47 pm and from 4:00 pm to 4:30 pm. During the first set of readings, there were two non-overlapping 3-minute average readings that exceeded 20% opacity. During the second set of readings, there were two non-overlapping 3-minute average readings that exceeded 20% opacity and one 6-minute average reading that exceeded 20% opacity. EAFs #1, #2, and #3 were operating within Defendant's No. 1 Shop at the time of the readings.

113. On October 17, 2018, EPA conducted Method 9 opacity readings at Defendant's No. 1 Shop from 10:27 am to 10:49 am. During that period, there were three non-overlapping 3-minute average readings that exceeded 20% opacity and two non-overlapping 6-minute average readings that exceeded 20% opacity. EAFs #1, #2, and #3 were operating within Defendant's No. 1 Shop at the time of the readings.

114. The opacity readings identified in Paragraphs 109-113 constitute violations of the opacity limits identified in Paragraphs 106 and 107, resulting in excess emissions of PM. Failure

to comply with these limits constitutes a violation of Defendant's Title V permit and associated Title V regulations at 40 C.F.R. § 70.7(b); the Ohio SIP; and CAA Section 502(a), 42 U.S.C. § 7661a(a).

115. Unless restrained by an order of this Court, the violations identified in this Claim for Relief will continue.

116. As provided in CAA Section 113(b), 42 U.S.C. § 7413(b), and pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 3701, and 40 C.F.R. § 19.4, the violations set forth above subject Defendant to injunctive relief and civil penalties of up to \$37,500 per day for each such violation occurring on or after January 13, 2009 through November 2, 2015; and up to \$109,024 per day for each such violation occurring on or after November 3, 2015, where penalties are assessed on or after January 12, 2022.

FOURTH CLAIM FOR RELIEF
Title V Permit -- Visible Emissions Violations

117. Paragraphs 1 through 81 are realleged and incorporated herein by reference.

118. Defendant's Title V permit limits stack emissions from the EAFs and the No. 1 Shop Plunging Station to "0.030 grain per dry standard cubic foot of exhaust gases from the control device or no visible particulate emissions, whichever is less stringent." The No. 1 Shop Baghouse is the control device for the No. 1 Shop Plunging Station and EAF #1, #2, and #3. The No. 2 Shop Baghouse is the control device for EAF #5 and #7. No visible particulate emissions is equal to or less stringent than 0.030 grain per dry standard foot of exhaust gases.

119. Defendant's Title V permit requires Defendant to perform daily checks, while equipment is in operation, for visible particulate emissions from the No. 1 Shop Baghouse and the No. 2 Shop Baghouse. Defendant has performed daily checks and reported instances of visible emissions in its semiannual reports.

120. Defendant reported that it operated with visible particulate emissions from the No. 1 Shop Baghouse on 60 days between July 1, 2011 and June 30, 2018.

121. Defendant reported that it operated with visible particulate emissions from the No. 2 Shop Baghouse on 81 days between July 1, 2011 and June 30, 2018.

122. The purpose of the visible particulate limits contained in the Facility's Title V permit and Ohio SIP is to help protect the public from unhealthy exposures to particulate.

123. The visible emissions identified in Paragraphs 120 and 121 constitute a violation of the prohibition on visible emissions identified in Paragraph 118. Failure to comply with this prohibition constitutes a violation of Defendant's Title V permit and associated Title V regulations at 40 C.F.R. § 70.7(b); and CAA Section 502(a), 42 U.S.C. § 7661a(a).

124. Unless restrained by an order of this Court, the violations identified in this Claim for Relief will continue.

125. As provided in CAA Section 113(b), 42 U.S.C. § 7413(b), and pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 3701, and 40 C.F.R. § 19.4, the violations set forth above subject Defendant to injunctive relief and civil penalties of up to \$37,500 per day for each such violation occurring on or after January 13, 2009 through November 2, 2015; and up to \$109,024 per day for each such violation occurring on or after November 3, 2015, where penalties are assessed on or after January 12, 2022.

FIFTH CLAIM FOR RELIEF
Title V Permit – Pressure Drop Violations

126. Paragraphs 1 through 81 are realleged and incorporated herein by reference.

127. Defendant's Title V permit requires Defendant to operate its pollution control baghouses within permitted pressure drop ranges (in inches of water) specific to each baghouse. Pressure drop is the difference in pressure between the "dirty-air" side of the baghouse and the

“clean-air” side and is a key indicator of how the baghouse is operating. The Title V permit also requires Defendant to monitor and record the pressure drop across each baghouse on a daily basis.

128. The No. 1 Shop baghouse has a permitted pressure drop range of 5-15 inches of water.

129. Defendant reported that it operated the emission units associated with the No. 1 Shop baghouse while its pressure drop was outside the permitted range on 124 days between July 1, 2011 and December 31, 2018.

130. The baghouse associated with the No. 1 Shop Alloy Sizing Line has a permitted pressure drop range of 1-7 inches of water.

131. Defendant reported that it operated the emission unit associated with that baghouse (the No. 1 Shop Alloy Sizing Line) while its pressure drop was outside the permitted range on 380 days between July 1, 2011 and June 30, 2017.

132. The baghouse associated with the No. 2 Shop Alloy Sizing Line has a permitted pressure drop range of 1-7 inches of water.

133. Defendant reported that it consistently operated the emission unit associated with that baghouse (the No. 2 Shop Alloy Sizing Line) while its pressure drop was outside the permitted range.

134. The baghouse associated with the Alloy Loader has a permitted pressure drop range of 1-4 inches of water.

135. Defendant reported that it consistently operated the emission unit associated with that baghouse (the Alloy Loader) while its pressure drop was outside the permitted range.

136. The baghouse associated with the Portable Jaw Crusher has a permitted pressure drop range of 4-6 inches of water.

137. Defendant reported that it consistently operated the emission unit associated with that baghouse (the Portable Jaw Crusher) while its pressure drop was outside the permitted range.

138. The operation of emission units while the pressure drop on the associated pollution control devices was outside the permitted range as identified in Paragraphs 128 through 137 constitute violations of the requirements to maintain the pressure drop ranges identified in those paragraphs. Failure to comply with these requirements constitutes a violation of Defendant's Title V permit and associated Title V regulations at 40 C.F.R. § 70.7(b); and CAA Section 502(a), 42 U.S.C. § 7661a(a).

139. Unless restrained by an order of this Court, the violations identified in this Claim for Relief will continue.

140. As provided in CAA Section 113(b), 42 U.S.C. § 7413(b), and pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 3701, and 40 C.F.R. § 19.4, the violations set forth above subject Defendant to injunctive relief and civil penalties of up to \$37,500 per day for each such violation occurring on or after January 13, 2009 through November 2, 2015; and up to \$109,024 per day for each such violation occurring on or after November 3, 2015, where penalties are assessed on or after January 12, 2022.

SIXTH CLAIM FOR RELIEF
Title V Permit – Reasonably Available Control Measures

141. Paragraphs 1 through 81 are realleged and incorporated herein by reference.

142. The Ohio SIP requires installation of reasonably available control measures (RACM) to prevent fugitive dust from becoming airborne. OAC § 3745-17-08(B). RACM

measures may include the installation of hoods, fans, and other equipment to adequately enclose, contain, capture, vent, and control the fugitive dust. Such equipment must have a collection efficiency sufficient to minimize or eliminate visible particulate emissions at the point of capture to the extent possible with good engineering design. OAC §3745-17-08(B)(3)(a). The control equipment must also achieve an outlet emission rate of not greater than 0.030 grain/dscf of exhaust gases or there are no visible particulate emissions from the exhaust stack, whichever is less stringent. OAC § 3745-17-08(B)(3)(b).

143. For the purpose of ensuring compliance at the No. 1 Shop Hot Metal Casting emissions unit with the Ohio SIP requirements described in Paragraph 142, Defendant's Title V permit requires Defendant to employ RACM in accordance with its permit application to capture emissions from the No. 1 Shop Hot Metal Casting emissions unit to the extent possible, specifically through use of furnace hoods.

144. During the February 2015 and December 2015 EPA inspections, EPA observed that emissions from the No. 1 Shop Hot Metal Casting were not routed to furnace hoods. Failure to comply with the requirement to employ RACM through use of furnace hoods constitutes a violation of Defendant's Title V permit and the Ohio SIP.

145. On February 15, 2017, EPA sent an information request to Globe pursuant to CAA Section 114(a) requiring that Globe conduct a ventilation and capture study ("Ventilation Study") at the Facility. The purpose of the Ventilation Study was to evaluate normal/baseline operations and visible emission conditions throughout the Facility and to evaluate possible improvements. Environmental Resources Management (ERM) performed the Ventilation Study in June 2017 in accordance with a plan previously approved by EPA.

146. ERM summarized the results of the Ventilation Study in a report submitted by Defendant to the United States on October 6, 2017. The report included photography (still and video) of No. 1 Shop Hot Metal Casting (Casting to Chills and Continuous Flow Caster), No. 1 Shop EAF, and No. 2 Shop EAF operations, under normal/baseline conditions.

147. ERM's Ventilation Study report states that "there is currently no ventilation or air pollution control directly associated with chill or continuous flow operation casting[.]" The associated videos confirmed this statement.

148. Failure to comply with the requirement to employ RACM through use of furnace hoods to capture emissions from the No. 1 Shop Hot Metal Casting emissions unit constitutes a violation of Defendant's Title V permit and the Ohio SIP.

149. Defendant's Title V permit limits fugitive opacity emissions for all EAFs and the No. 1 Shop Plunging Station to no more than 20% opacity, as a 3-minute average.

150. For the purpose of ensuring compliance at the EAFs and No. 1 Shop Plunging Station with the Ohio SIP requirements described in Paragraph 142 and the opacity requirements described in Paragraph 149, Defendant's Title V permit requires Defendant to employ RACM in accordance with its permit application, including maintaining enclosures and venting particulate emissions to the baghouses.

151. Poor capture from the EAFs and No. 1 Shop Plunging Station, as identified during indoor observations of the EAFs during the August 2013, February 2015, and December 2015 EPA inspections, as well as the opacity exceedances identified above, show that Defendant's currently installed capture system does not satisfy its RACM requirements.

152. The Ventilation Study videos of Shop No. 1 EAF operations and Shop No. 2 EAF operations also showed emissions capture issues, especially during tapping and plunging (for

Shop No. 1). The Ventilation Study included opacity observations, including 6-minute average opacity readings over 20% during Shop No. 2 observations.

153. Poor capture from the EAFs and No. 1 Shop Plunging Station, as identified during the 2017 Ventilation Study show that Defendant's currently installed capture system does not satisfy its RACM requirements.

154. Unless restrained by an order of this Court, the violations identified in this Claim for Relief will continue.

155. As provided in CAA Section 113(b), 42 U.S.C. § 7413(b), and pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 3701, and 40 C.F.R. § 19.4, the violations set forth above subject Defendant to injunctive relief and civil penalties of up to \$37,500 per day for each such violation occurring on or after January 13, 2009 through November 2, 2015; and up to \$109,024 per day for each such violation occurring on or after November 3, 2015, where penalties are assessed on or after January 12, 2022.

PRAYER FOR RELIEF

WHEREFORE, based upon all of the allegations contained in Paragraphs 1 through 155 above, the United States of America requests that this Court:

1. Permanently enjoin Defendant from operating the Facility, including the construction of future modifications or reconstructions, except in accordance with the Clean Air Act and any applicable regulatory requirements;
2. Order Defendant to apply for and comply with permits for the Facility that are in conformity with the requirements of the PSD program and the Ohio SIP, and with the Title V Program;

3. Order Defendant to remedy its past violations of the PSD requirements of the Clean Air Act by, among other things, requiring Defendant to install and operate BACT for SO₂ on EAF #5;

4 Order Defendant to achieve, maintain and demonstrate compliance with the Clean Air Act and its implementing regulations, including the NSPS provisions; its Title V Permit; and related Ohio SIP requirements;

5. Order Defendant to take other appropriate actions to remedy, mitigate, and offset the harm to public health and the environment caused by the violations of the Clean Air Act alleged above;

6. Assess a civil penalty against the Defendant of up to \$37,500 per day for each such violation occurring on or after January 13, 2009 through November 2, 2015; and up to \$102,638 per day for each such violation occurring on or after November 3, 2015;

7. Award Plaintiff its costs in of this action; and,

8. Grant such other relief as the Court deems just and proper.

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Respectfully submitted,

FOR THE UNITED STATES OF AMERICA

TODD KIM
Assistant Attorney General
Environment & Natural Resources Division
United States Department of Justice

Date: July 25, 2023

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